



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

Shutter Tech, Inc.
7485 W. 2nd Court
Hialeah, FL 33014

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER- Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: "Maximum Impact Duraweld" Aluminum Hinged Bahama Shutter

APPROVAL DOCUMENT: Drawing No. 270102, titled "Maximum Impact Duraweld Bahama Shutter", sheets 1 through 5 of 5, prepared by Ramms Engineering, Inc., last revision dated January 16, 2014, signed and sealed by Robert S. Monsour, P.E., on January 22, 2014, bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and the expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, the following statement: "Miami-Dade County Product Control Approved", NOA number, and TAS-201, TAS-202, and TAS-203, unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA # 13-0306.03 and consists of this page 1, evidence submitted pages E-1 & E-2, as well as document mentioned above.

The submitted documentation was reviewed by **Helmy A. Makar, P.E., M.S.**



Helmy A. Makar
03/20/2014

NOA No. 14-0127.04
Expiration Date: 05/08/2018
Approval Date: 03/20/2014

Shutter Tech, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing No. 27102, titled "Maximum Impact Bahama Shutter", sheets 1 through 5 of 5, prepared by Ramms Engineering, Inc., dated December 01, 2007, signed and sealed by Robert S. Monsour, P.E., on March 27, 2008.*

B. TESTS

1. *Test report on TAS201-Large Missile Impact Test, TAS203-Cyclic Wind Pressure Test, and TAS202-Uniform Static Air Pressure Test of "Bahama Shutters", prepared by American Test Lab of South Florida, report No. ATLSF #1130.01-05, dated 06/26/2006, signed and sealed by William R. Mehner, P.E., and Henry Hattem, P.E.
(SUBMITTED UNDER PREVIOUS APPROVAL # 07-1210.03.)*

C. CALCULATIONS

1. *Metal Tech Duraweld Bahama Shutter Calculations prepared by Ramms Engineering, Inc., dated March 11, 2008, signed and sealed by Robert S. Monsour, P.E., on March 27, 2008.
(SUBMITTED UNDER PREVIOUS APPROVAL # 07-1210.03.)*

D. QUALITY ASSURANCE

1. *Miami-Dade Department of Regulatory and Economic Resources (RER).*

E. MATERIAL CERTIFICATIONS

1. *Component Material Reports of Aluminum Bahama Shutters, prepared by MI Metals, Inc. with material specifications.
(SUBMITTED UNDER PREVIOUS APPROVAL # 07-1210.03.)*

F. STATEMENTS

1. *Statement letter of conformance and compliance with the FBC-2010, dated 02/19/13, signed and sealed by Robert S. Monsour, P. E.*

G. OTHERS

1. *Notice of Acceptance No. 07-1210.03, issued to Metal Tech, Inc. for their "Maximum Impact Duraweld Aluminum Hinged Bahama Shutter", approved on 05/08/08 and expiring on 05/08/13.*

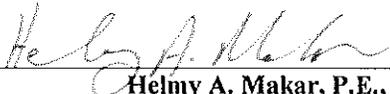
NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. *Drawing No. 270102, titled "Maximum Impact Duraweld Bahama Shutter", sheets 1 through 5 of 5, prepared by Ramms Engineering, Inc., last revision dated January 16, 2014, signed and sealed by Robert S. Monsour, P.E., on January 22, 2014.*

B. TESTS

1. *None.*



Helmy A. Makar, P.E., M.S.
Product Control Unit Supervisor
NOA No. 14-0127.04
Expiration Date: 05/08/2018
Approval Date: 03/20/2014

Shutter Tech, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

C. CALCULATIONS

1. *None.*

D. QUALITY ASSURANCE

1. *Miami-Dade County Department of Regulatory and Economic Resources (RER).*

E. MATERIAL CERTIFICATIONS

1. *None.*

F. STATEMENTS

1. *None.*

G. OTHERS

1. *Asset Purchase Agreement.*



Helmy A. Makar, P.E., M.S.
Product Control Unit Supervisor
NOA No. 14-0127.04
Expiration Date: 05/08/2018
Approval Date: 03/20/2014

SHUTTER-TECH, INC.

MAXIMUM IMPACT™ DURAWELD BAHAMA SHUTTER

NOTES:

HIGH VELOCITY HURRICANE ZONE

THIS SHUTTER TECH BAHAMA SHUTTER COMPLIES WITH THE FLORIDA BUILDING CODE

FBC CERTIFIED TESTING IN ACCORDANCE WITH TAS 201-94, AND 202-94 AND 203-94 PROTOCOLS ALSO IN ACCORDANCE WITH E 1886-02 AND E 1996-02 STANDARDS

MINIMUM DESIGN LOADS CALCULATIONS PERFORMED PER ASCE 7 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"
ALL ALUMINUM EXTRUSIONS TO BE ALLOY 6063-T6

BACKING SHALL BE .093 THICK POLYCARBONATE SECURED WITH #64 or #68 S.S. POPRIVETS 15" O.C. MAX.

ANCHORAGE OF SHUTTER TO CONCRETE OR MASONRY AT HEADER SHALL BE WITH 1/4" MASONRY SCREWS WITH 1 1/4" MINIMUM EMBEDMENT.

ANCHORAGE OF SHUTTER TO CONCRETE OR MASONRY AT BRACKETS SHALL BE 1/4-20 MACHINE SCREW ANCHOR WITH 7/8" MINIMUM EMBEDMENT OR FEMALE PANELMATE WITH 1/4-20 M/S (FLOOR PLUG) WITH 1 1/4" MINIMUM EMBEDMENT OR 1/4" MALE PANELMATE WITH 1/4-20 WASHERED WINGNUTS WITH 1 1/4" MINIMUM EMBEDMENT.

ANCHORAGE OF SHUTTER TO WOOD AT HEADER SHALL BE 1/4" WOOD LAGS WITH 1" MIN. EMBEDMENT OR 1/4" MASONRY SCREWS WITH 1 7/8" MINIMUM EMBEDMENT

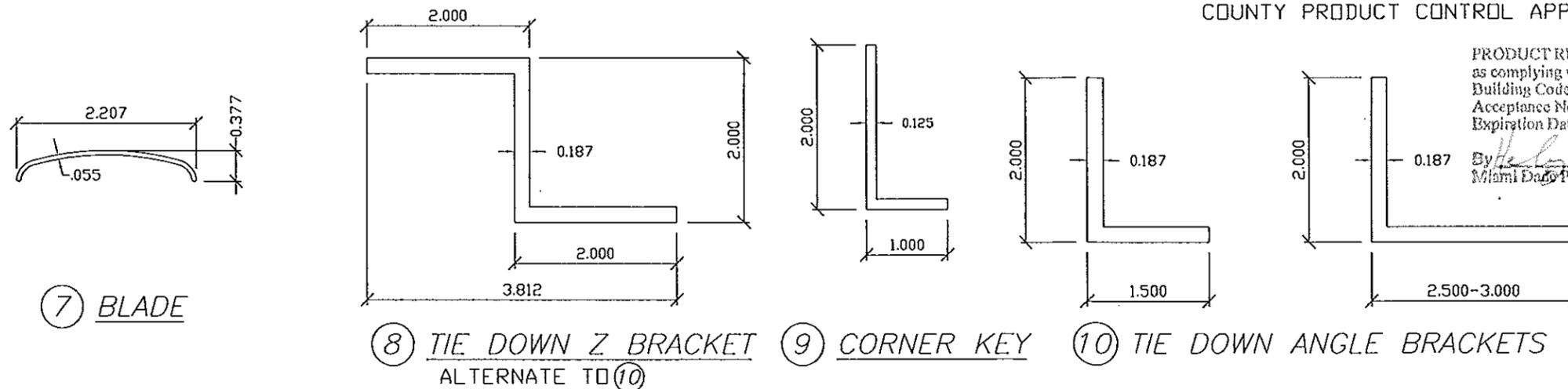
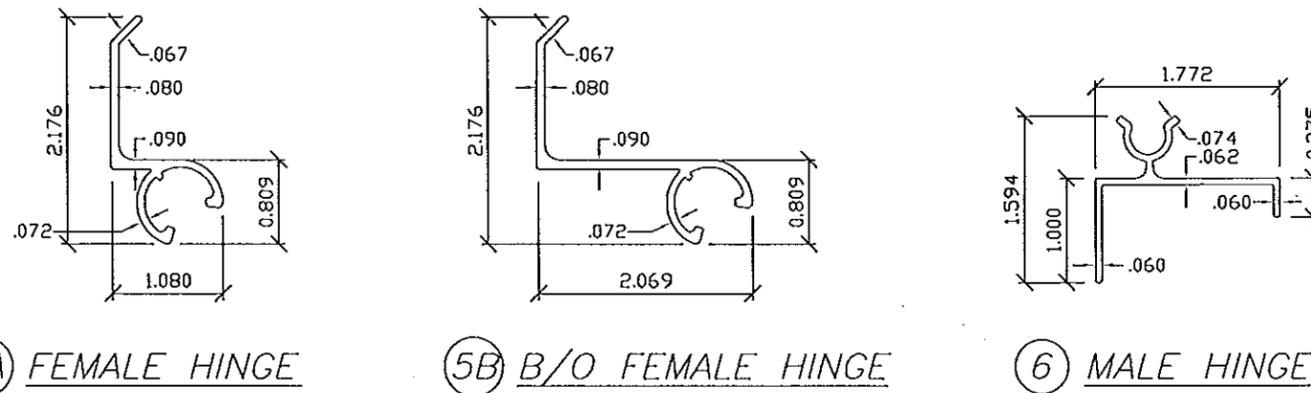
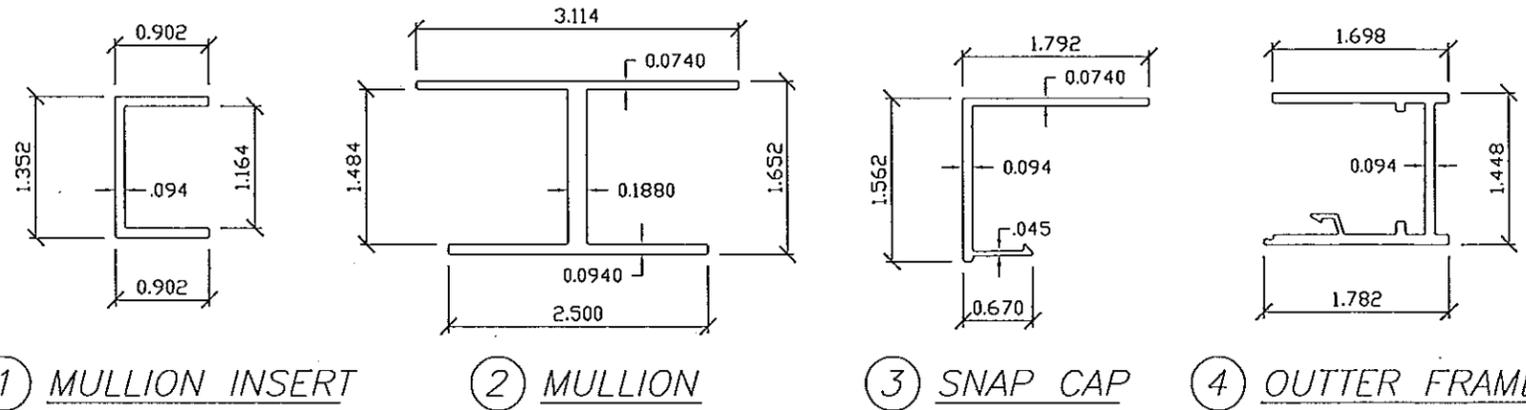
ANCHORAGE OF SHUTTER TO WOOD AT BRACKETS SHALL BE 1/4" MALE PANELMATES WITH 1/4-20 WASHERED WINGNUTS OR 1/4" FEMALE PANELMATE WITH 1/4-20 M.S. (FLOOR PLUG) WITH 1 7/8" MINIMUM EMBEDMENT.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE TO INSURE PROPER ANCHORAGE.

EACH BAHAMA SHUTTER SHALL BEAR PERMANENT LABEL SHOWING SHUTTER TECH, INC. HIALEAH, FL - MIAMI DADE COUNTY PRODUCT CONTROL APPROVED

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 14-0127.04
Expiration Date 05/08/2018
By *[Signature]*
Miami Dade Product Control

[Signature]
ROBERT S. MONSOUR, PE
11955
RAMMS ENGINEERING, INC.



REVISIONS	BY
01/16/14	SP

RAMMS ENGINEERING, INC.
Structural Design
2100 W. 76th STREET, SUITE 311
HIALEAH, FLORIDA 33016
EB 0006024

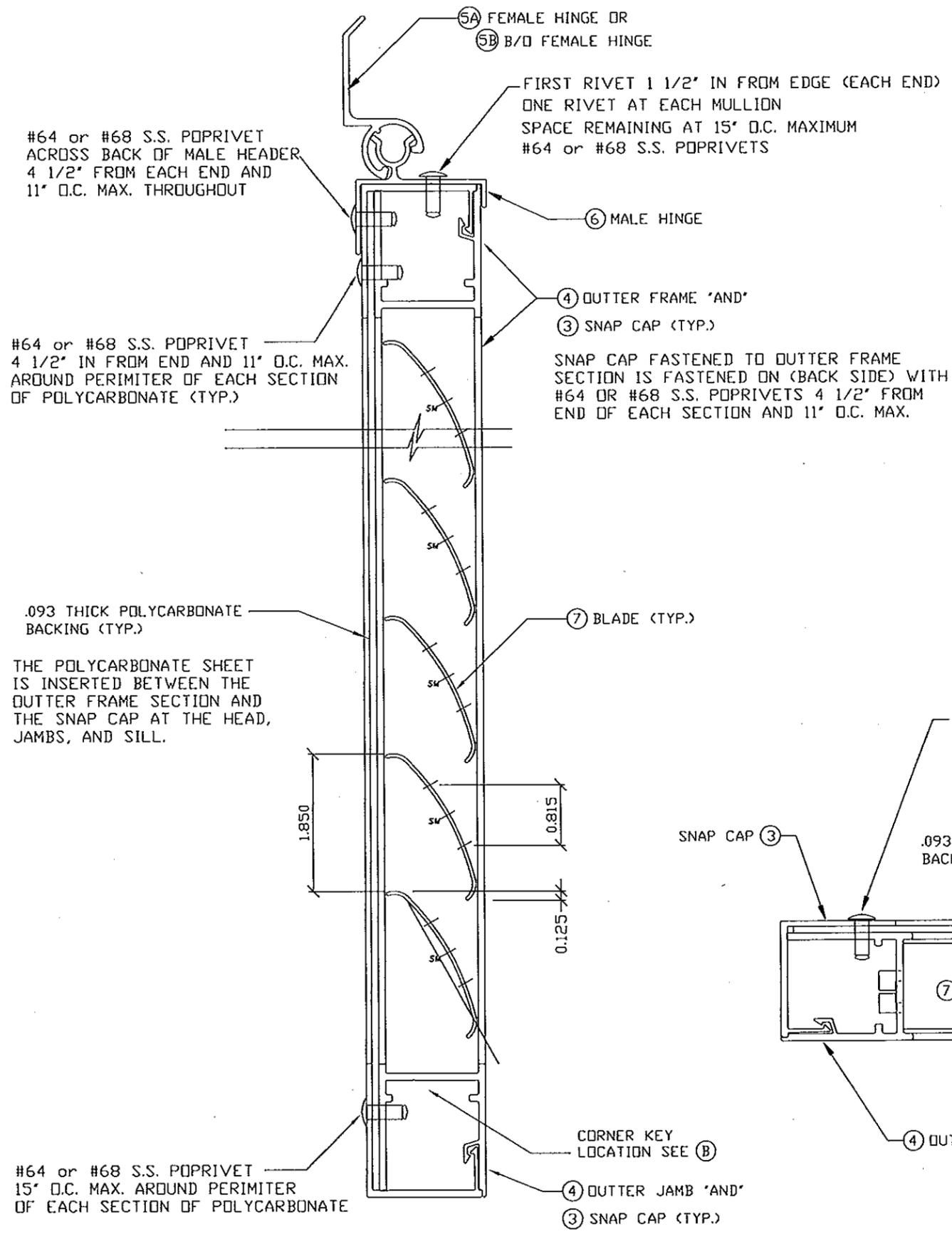
MAXIMUM IMPACT DURAWELD BAHAMA SHUTTER
SHUTTER-TECH, INC.
7485 W. SECOND CT. HIALEAH, FL 33014

DATE	BY
12/01/2007	RSM

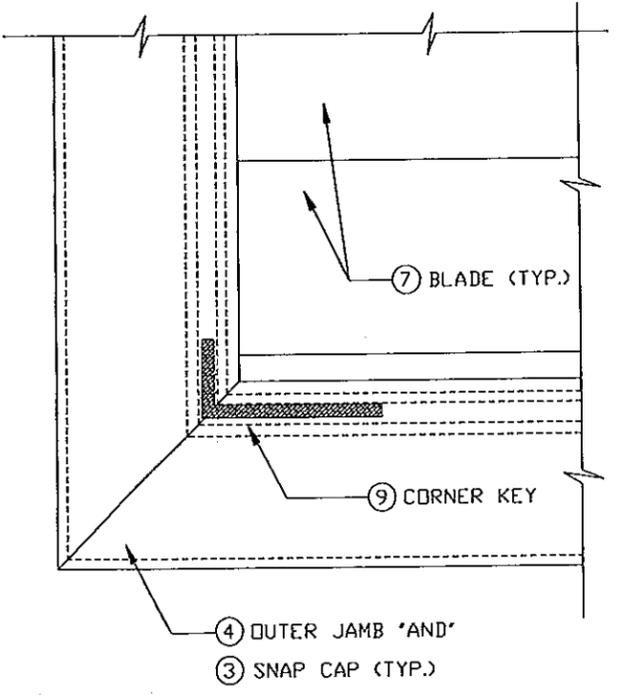
JOB: 270102
SHEET: 1
5

HIGH VELOCITY HURRICANE ZONE

REVISIONS	BY
01/16/14	SP

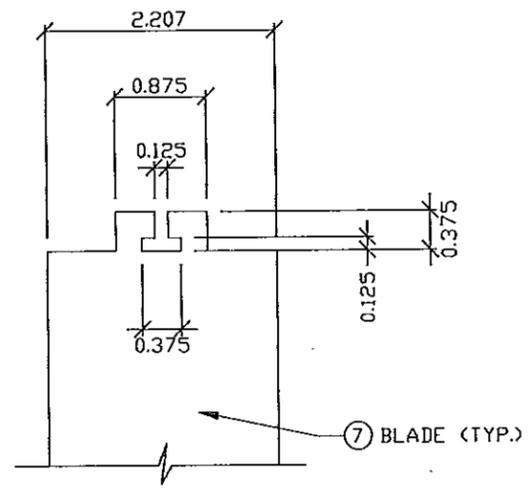


(A) TYPICAL CROSS SECTION ASSEMBLY

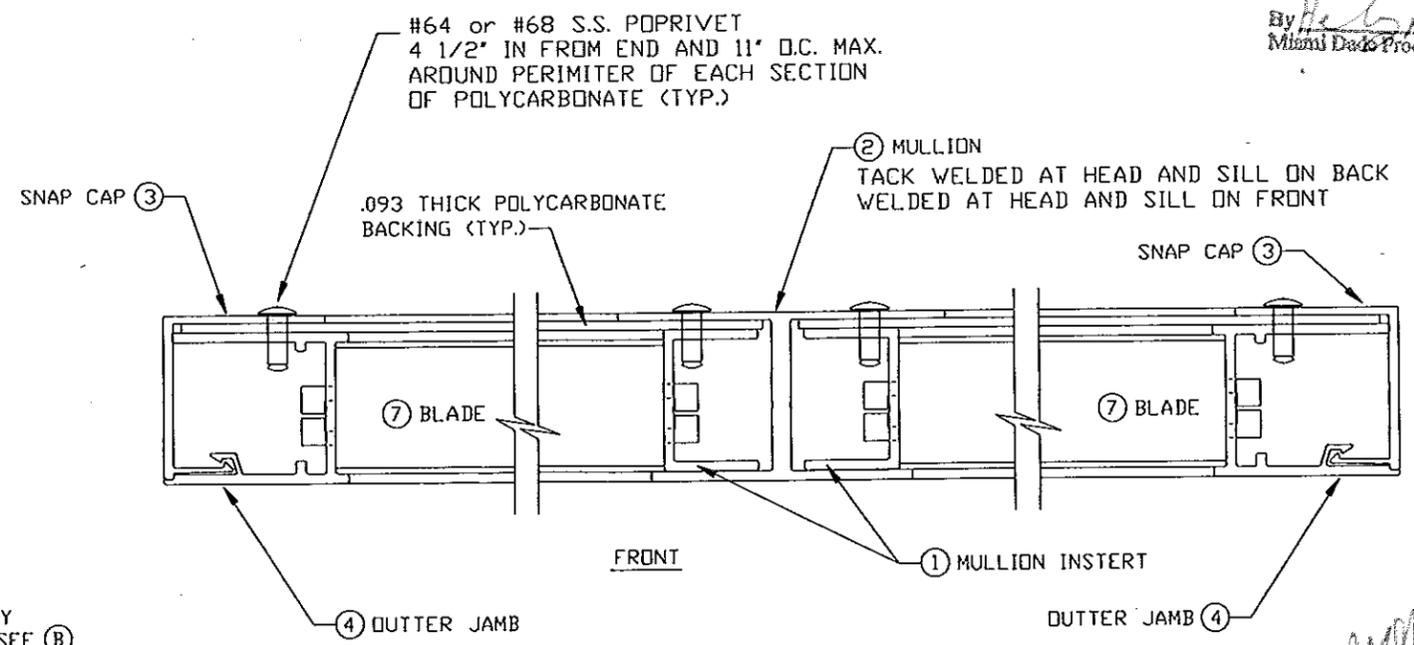


(B) CORNER KEY DETAIL ELEV.

SILL AND HEADER ATTACHED TO EACH JAMB WITH CORNER KEY TACK WELDED TO SILL, JAMBS AND HEADER. EACH MITTER CORNER CUT IS WELDED.



(C) BLADE PUNCH DETAIL



(D) PLAN VIEW CROSS SECTION WITH MULLION

PRODUCT REVISED as complying with the Florida Building Code
 Acceptance No. 14-0127.04
 Expiration Date 25/12/2018
 By: *[Signature]*
 Miami Data Product Control

ROBERT S. MONSOUR, PE
 11955
 RAMMS ENGINEERING, INC.

RAMMS ENGINEERING, INC.
Structural Design
 2100 W. 76th STREET, SUITE 311
 HIALEAH, FLORIDA 33016
 EB 0006024

MAXIMUM IMPACT DURAWELD BAHAMA SHUTTER
SHUTTER-TECH, INC.
 7485 W. SECOND CT. HIALEAH, FL 33014

DATE	APPROVED
SEP / RSM	
DATE: 12/01/2007	
SCALE: SHOWN	
JOB: 27102	
SHEET: 5	

HIGH VELOCITY HURRICANE ZONE

EXISTING STRUCTURE
POURED CONCRETE, CONCRETE
BLOCK, MASONRY OR WOOD

SEE SHEET 5 OF 7 FOR
ANCHORING REQUIREMENTS

5A FEMALE HINGE OR
5B B/O FEMALE HINGE

FIRST RIVET 1 1/2" IN FROM EDGE (EACH END)
ONE RIVET AT EACH MULLION
SPACE REMAINING AT 15" O.C. MAXIMUM
#64 OR #68 S.S. POPRIVETS

6 MALE HINGE

4 OUTER FRAME AND
3 SNAP CAP (TYP.)

.093 THICK POLYCARBONATE
BACKING (TYP.)

1" MIN.
SEPERATION
TO GLASS

7 BLADE (TYP.)

ANCHOR NOTE 1:

ANCHORAGE OF CAMEL BACK HINGE TO CONCRETE OR
MASONRY SHALL BE 1/4"-20 MACHINE SCREW ANCHOR
WITH 7/8" MIN. EMBEDMENT OR FEMALE PANELMATE
WITH 1/4"-20 M/S (FLOOR PLUG) WITH 1 1/2" MIN. EMBEDMENT
OR 1/4" MALE PANELMATE WITH 1/4"-20 WASHERED WINGNUTS
WITH 1 1/2" MIN. EMBEDMENT.

ANCHORAGE OF CAMEL BACK HINGE TO WOOD SHALL BE
1/4" MALE PANELMATES WITH 1/4"-20 WASHERED WINGNUTS
OR 1/4" FEMALE PANELMATE WITH 1/4"-20 M.S. (FLOOR PLUG)
WITH 1 7/8" MINIMUM EMBEDMENT.

4 OUTER FRAME AND
3 SNAP CAP (TYP.)

2#14-20 RIVETNUTS AND
2#14-20x1" FLOOR PLUG
3" O.C. AT EACH BOTTOM
CORNERS AND AT EACH MULLION

10 TIE DOWN BRACKET X 4"

SEE SHEET 4 AND 5 OF 5 FOR
ANCHORING REQUIREMENTS

EXISTING STRUCTURE
POURED CONCRETE, CONCRETE
BLOCK, MASONRY OR WOOD

D WALL MOUNT SECTION
HURRICANE POSITION

EXISTING STRUCTURE
POURED CONCRETE, CONCRETE
BLOCK, MASONRY OR WOOD

SEE SHEET 5 OF 5 FOR
ANCHORING REQUIREMENTS

5A FEMALE HINGE OR
5B B/O FEMALE HINGE

6 MALE HINGE

4 OUTER FRAME AND
3 SNAP CAP (TYP.)

11 CAMEL BACK HINGE

12 1.0" DIA.
SERRATED TUBE

13 .875" DIA.
SERRATED TUBE

7 BLADE (TYP.)

4 OUTER FRAME AND
3 SNAP CAP (TYP.)

.093 THICK POLYCARBONATE
BACKING (TYP.)

CLAMP RING WITH
1/4"-20 THUMBSCREW

EXISTING STRUCTURE
POURED CONCRETE, CONCRETE
BLOCK, MASONRY OR WOOD

SEE ANCHOR NOTE 1: ON THIS PAGE

E WALL MOUNT SECTION
NON HURRICANE POSSISION

monsour
12/22/14

ROBERT S. MONSOUR, PE
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RAMMS ENGINEERING, INC.

REVISIONS	BY
01/16/14	SP

RAMMS ENGINEERING, INC.
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2100 W. 76th STREET, SUITE 311
HALEAH, FLORIDA 33016
EB 0006024

MAXIMUM IMPACT DURAWELD BAHAMA SHUTTER
SHUTTER-TECH, INC.
7485 W. SECOND CT. HALEAH, FL 33014

DATE	APPROVED
12/01/2007	SEP / RSM
SCALE	SHOWN
JOB	27102
SHEET	3
OF	5

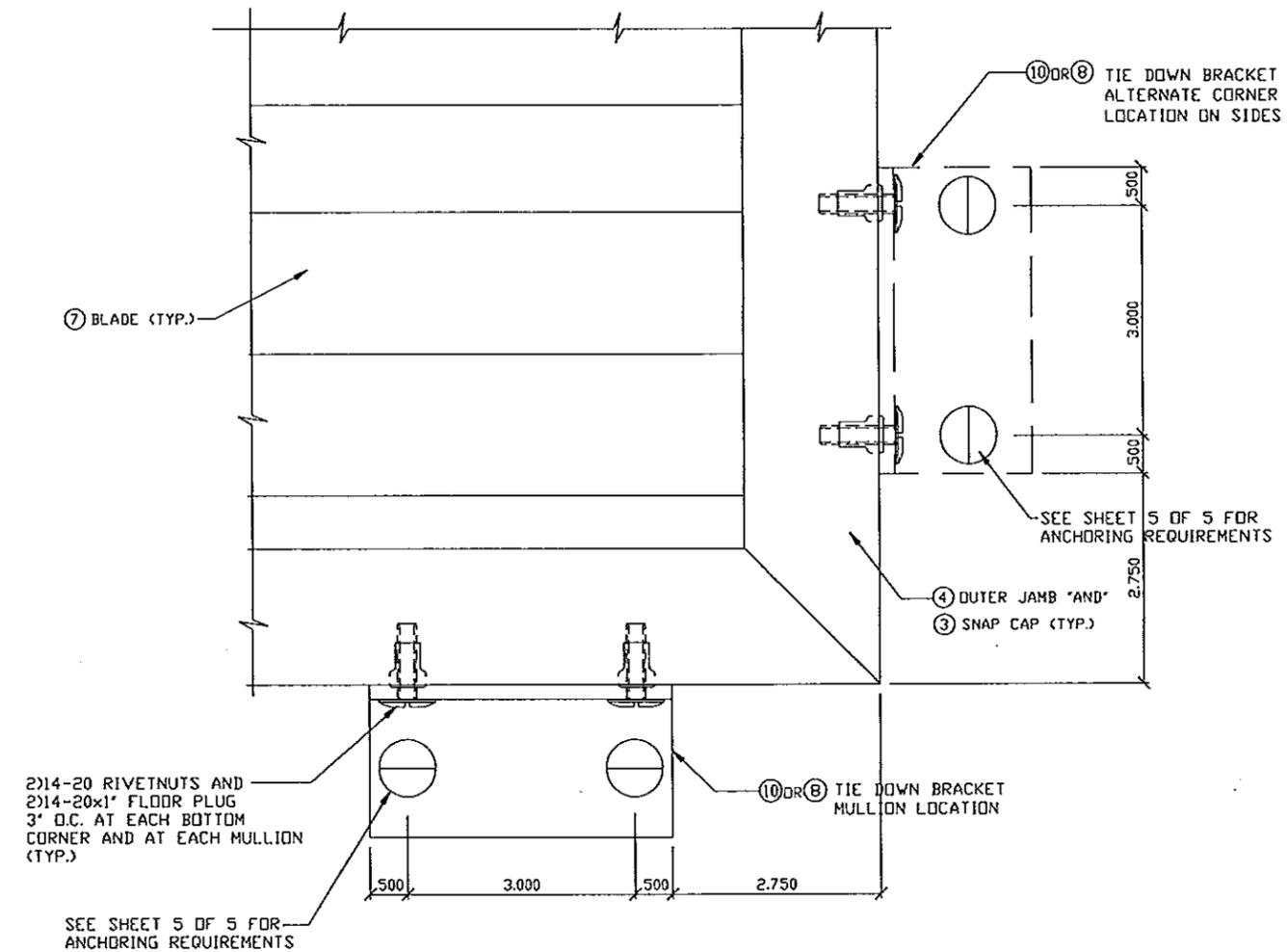
HIGH VELOCITY HURRICANE ZONE

REVISIONS	BY
01/16/14	SP

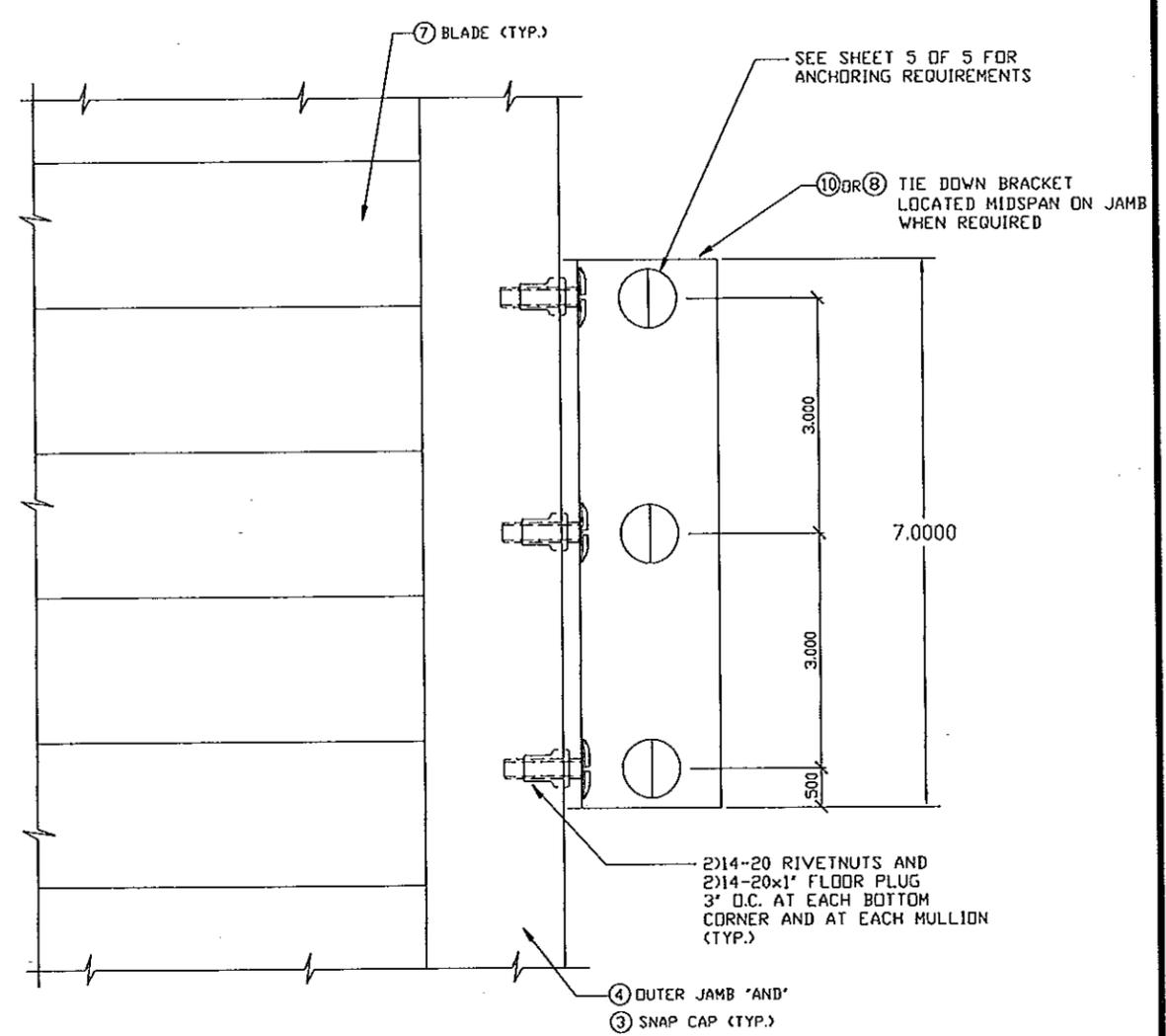
RAMMS ENGINEERING, INC.
Structural Design
 2100 W. 70th STREET, SUITE 311
 HALEAH, FLORIDA 33016
 EB 0006024

MAXIMUM IMPACT DURAWELD BAHAMA SHUTTER
SHUTTER-TECH, INC.
 7485 W. SECOND CT. HALEAH, FL 33014

DATE	APPROVED
12/01/2007	
SCALE	
SHOWN	
JOB	27102
SHEET	4
	5

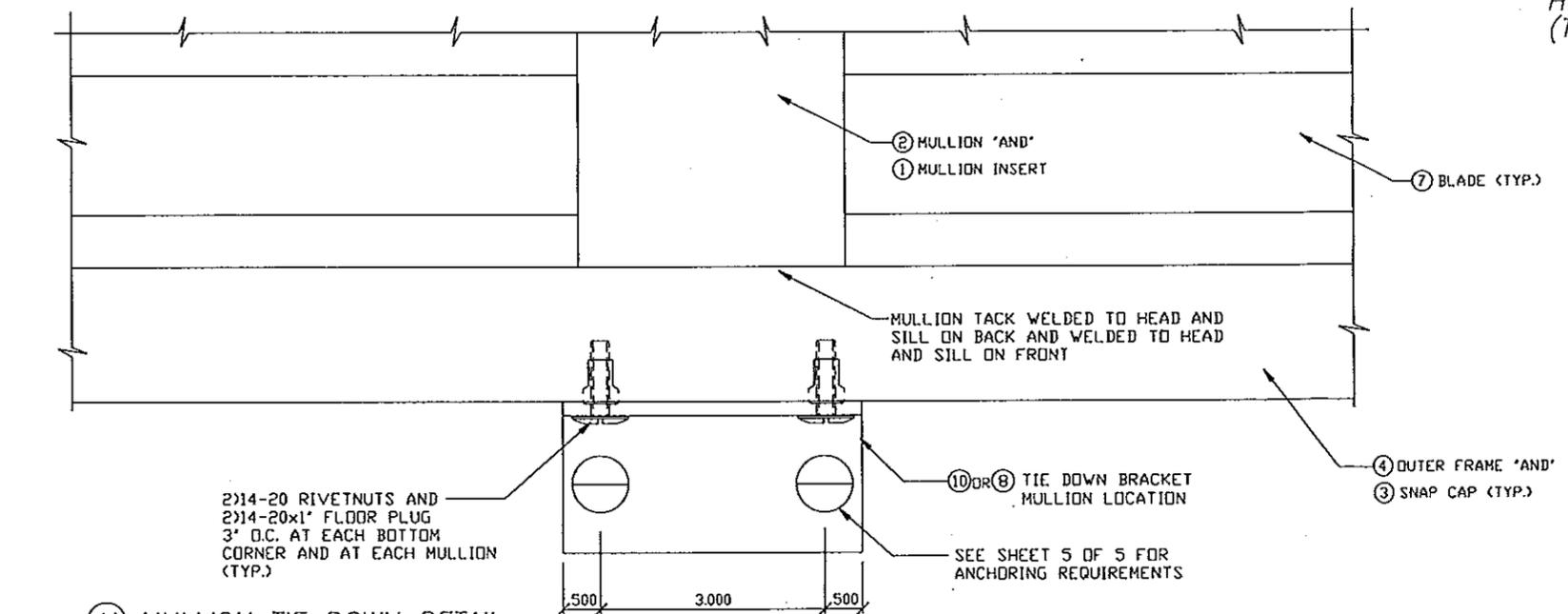


F CORNER TIE DOWN DETAIL
 HURRICANE POSITION
 (TYP.) RIGHT AND LEFT CORNERS



G JAMB TIE DOWN DETAIL
 HURRICANE POSITION
 (TYP.) RIGHT AND LEFT SIDE

NOTE:
 WHEN #8 TIE DOWN Z BRACKET IS USED AS AN ALTERNATIVE TO #10 TIE DOWN BRACKETS, THE Z BRACKET IS NOT REQUIRED TO BE ATTACHED TO THE SHUTTER. THE Z BRACKET ONLY NEEDS TO BE ANCHORED TO THE WALL.



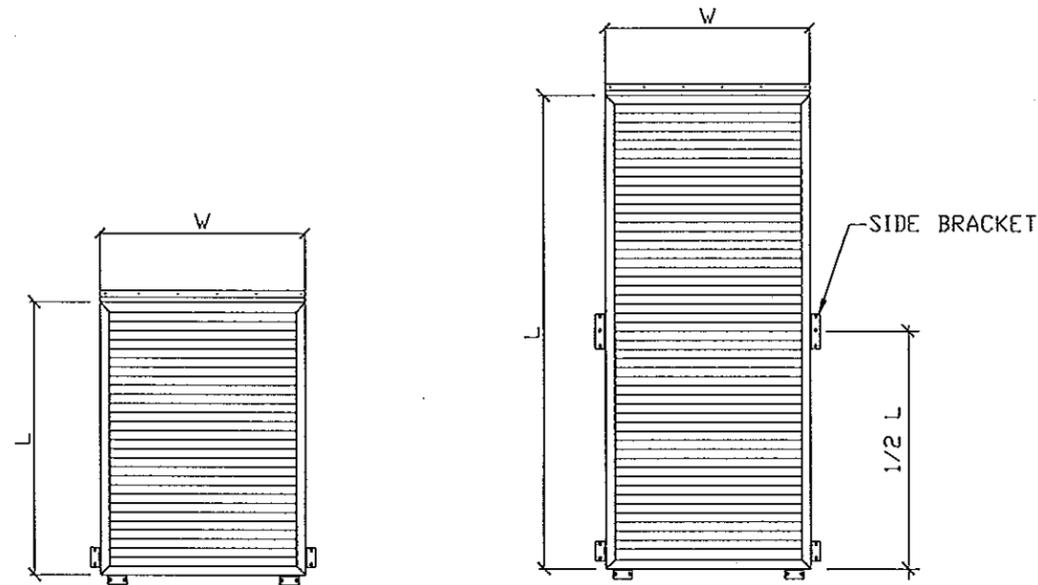
H MULLION TIE DOWN DETAIL
 HURRICANE POSITION
 (TYP.) EACH MULLION

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No 14-0127-04
 Expiration Date 05/08/2018
 By *Robert S. Monsour*
 Miami Dade Product Control

Robert S. Monsour
 11/2/14
ROBERT S. MONSOUR, PE
 11955
 RAMMS ENGINEERING, INC.

CHART 1 MAXIMUM SIZE VS DESIGN PRESSURE

SINGLE UNIT (SECTION) ELEVATION



CORNER BRACKETS MAY BE INSTALLED ON BOTTOM OR SIDE ONE PER CORNER

DESIGN RATING PRESSURE IN P.S.F.	MAXIMUM WIDTH "W"	MAXIMUM SPAN "L"		
		W/O SIDE BRACKET	WITH SIDE BRACKET	MINIMUM SEPARATION TO GLASS
+67.2 , -75.6	42"	57 9/16"	N/A	3 1/4"
+67.0 , -90.0	42"	N/A	92 3/8"	3"

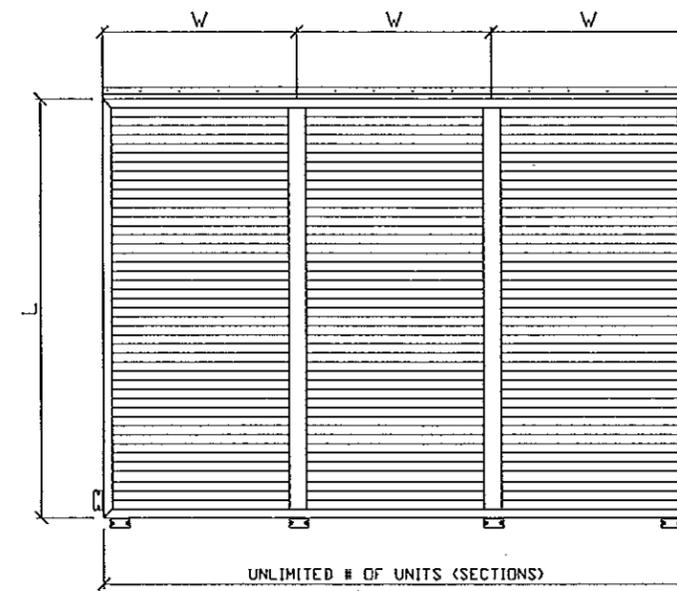
SEE SHEET 4 OF 5 FOR BRACKET SPECIFICATIONS

ANCHOR SPACING:

ALL HEADER ANCHOR SPACING 8" O.C.
ALL BRACKET ANCHOR SPACING 3" O.C.
INTO POURED CONCRETE OR CONCRETE BLOCK

CHART 2 MAXIMUM SIZE VS DESIGN PRESSURE

MULTIPLE UNIT (SECTIONS) ELEVATION



CORNER BRACKETS MAY BE INSTALLED ON BOTTOM OR SIDE ONE PER CORNER

DESIGN RATING PRESSURE IN P.S.F.	MAXIMUM WIDTH "W"	MAXIMUM SPAN "L"		
		W/O SIDE BRACKET	WITH SIDE BRACKET	MINIMUM SEPARATION TO GLASS
+54.0 , -70.0	30"	85 1/4"	N/A	3 9/16"

SEE SHEET 4 OF 5 FOR BRACKET SPECIFICATIONS

ANCHORAGE OF SHUTTER TO CONCRETE OR MASONRY AT HEADER SHALL BE WITH 1/4" MASONRY SCREWS WITH 1 1/4" MINIMUM EMBEDMENT.

ANCHORAGE OF SHUTTER TO CONCRETE OR MASONRY AT BRACKETS SHALL BE 1/4-20 MACHINE SCREW ANCHOR WITH 7/8" MIN. EMBEDMENT OR FEMALE PANELMATE WITH 1/4-20 M/S (FLOOR PLUG) WITH 1 1/2" MIN. EMBEDMENT OR 1/4" MALE PANELMATE WITH 1/4-20 WASHERED WINGNUTS WITH 1 1/2" MIN. EMBEDMENT.

ANCHORAGE OF SHUTTER TO WOOD AT HEADER SHALL BE 1/4" WOOD LAGS WITH 1" MIN. EMBEDMENT OR 1/4" MASONRY SCREWS WITH 1 7/8" MINIMUM EMBEDMENT

ANCHORAGE OF SHUTTER TO WOOD AT BRACKETS SHALL BE 1/4" MALE PANELMATES WITH 1/4-20 WASHERED WINGNUTS, OR 1/4" FEMALE PANELMATE WITH 1/4-20 M.S. (FLOOR PLUG) WITH 1 7/8" MINIMUM EMBEDMENT.

PRODUCT REVISED as complying with the Florida Building Code Acceptance No 14-0127-04 Expiration Date 05/09/2018 By *[Signature]* Miami Dade Product Control

ANCHOR SPACING:

ALL HEADER ANCHOR SPACING 6" O.C.
ALL BRACKET ANCHOR SPACING 3" O.C.
INTO WOODEN STRUCTURES

[Signature]
ROBERT S. MONSOUR, PE
11955
PARTS ENGINEERING, INC.

REVISIONS	BY
01/16/14	SP

RAMMS ENGINEERING, INC.
Structural Design
2100 W. 76th STREET, SUITE 311
HALEAH, FLORIDA 32016
EB 0006024

MAXIMUM IMPACT DURAWELD BAHAMA SHUTTER
SHUTTER-TECH, INC.
7485 W. SECOND CT. HIALEAH, FL 33014

DATE	SCALE	JOB	SHEET
12/01/2007	SHOWN	27102	5
			5